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THE UNITED STATES AND THE WORLD ECONOMY

Judgement on the implications of the plans for international economic reconstruction based on the restoration of market economics rests primarily though not entirely on the estimate of the trends in the United States. Lord Keynes, in an article published in the last number of the *Economic Journal*, after his death has put forward two propositions. The first is that the development of the balance of payments of the United States since the depression of 1931, and more especially since the war, does not justify the apprehension that the United States will denude the world of its international reserves and, under the ' multilateral ' ' rules of the game ', impose deflation on other countries. His second proposition is that the United States proposals for commercial policy ' represent a magnificent objective approach which a few years ago we should have regarded as offering incredible promise of a better scheme of things.' This ' better scheme of things ' is to be brought about by the ' fundamental ' forces described in classical theory. These forces are expected to make the United States a ' high living and high cost ' country and thus banish the fear of deflation. The United States—just as Britain in the last century—will become a staid creditor country.

In the present article an attempt will be made to analyse the problem of the importance of the United States in the world economy and her influence on conditions elsewhere. Unfounded optimism in this respect might persuade the British Government to accept yet further commitments detrimental to the interests not merely of this country, but of all smaller and poorer areas.

Scepticism in regard to the stabilizing influence of the U.S. does not necessarily mean that the rejection of the Final Act of Bretton Woods and of the United States proposals for an International Trade Organization is indicated. Their acceptance might still be regarded as the lesser evil—*politically*. But the recognition of their basically unfavourable character to Britain and every other smaller and poorer country is of utmost importance if we wish to mitigate their evil effects by pressing for suitable interpretation of the objectionable and unjust clauses.

THE U.S. BALANCE OF PAYMENTS IN DEPRESSIONS

The first proposition, *i.e.* that the United States are not likely to deflate the world by absorbing international liquid reserves, rests on two arguments. The first of these is the well known fact that the balance of payments of the United States on current account has not shown a large positive balance in the last pre-war decade, 1930–1938. The pressure on other countries' reserves was exercised by the violent movements of ' hot money ' which not merely need not but positively cannot recur under the Bretton Woods' plan which enjoins borrower countries to supervise and prevent capital movements. But the mere fact that the U.S. current balance of payments did not show any excess between 1930 and 1938 does not suffice to show that under different conditions a vast excess would not materialize. Since because of a flight of capital (hot money) or the withdrawal of previous U.S. credits the debtors had no reserves, the U.S. balance of payments on current account could show no excess as there was nothing with which to pay for it.

The United States Department of Commerce supplied the data needed to elucidate the causal inter-relations. The annual total supply of dollars to foreign countries decreased between 1929 and 1932 by some $5,000 million. The decrease of the supply originating in current transactions—imports and services—accounted for no less than $4,000 million of this fall. To avoid losing more gold or other reserves than they lost during the period of acute financial confidence crisis in 1930–1 the other countries of the world deflated, suffering the unemployment of millions of their workers (and in weak countries a breakdown of democratic parliamentarism), devalued by much more than the 10 per cent permitted without consultation of the Fund, increased tariffs, and instituted exchange control, multiple currency practices and reciprocal purchase, payments and clearing agreements, now no longer permissible. In fact, in face of the American maelstrom, they did precisely the things which they have now undertaken never to do again. Nevertheless they could not avoid an appalling volume of unemployment. It is somewhat astonishing that precisely the experiences of the 1930–38 period should be advanced to plead the innocuous nature of the undertakings to the United States which we have signed or to which we have given our assent.

Nor is it possible to argue on the basis of these statistics, that there is no reason to suppose—as some of us have done—that the United States balance of payments on current account is likely to show a favourable balance when there is a depression in the United States, if not its effects are not countered by increased autarky or the depression does not spread abroad. It is difficult to understand how the statistics relating to the period of 1929–32 can prove or disprove this proposition, because, as we have already pointed out, every possible restrictionist and deflationist device known was practiced in that period and the raging deflation abroad could not be stopped. On the other hand the data for 1937–38, when the United States suffered a violent cramp but when the growing political tension abroad and the accompanying armaments prevented a full depression from materializing elsewhere, show that exports did increase relatively to imports—despite the fact that preferences, quotas, discriminating purchase agreements and exchange restrictions were maintained, almost as strict as during the great depression and all countries, except Germany and the U.S.S.R., suffered from *some* unemployment.

What the United States excess of exports would have been had there been no unemployment abroad and had there been no recourse to the restrictionist and autarkic devices now outlawed I do not pretend to know. I am sure it would have been many times greater than that actually experienced—that is if the other countries had had the necessary gold or dollar exchange reserve to permit a deficit of such magnitude. It is precisely the vastness of the probable United States export surplus in conditions like these that led some commentators to urge that even the original Clearing Union Scheme (not to mention the White Scheme adopted as the basis of the Final Act of Bretton Woods) was insufficient to permit the maintenance of full employment internationally, unless some supranational device were incorporated in the scheme to bring about equilibrium.[1]

We must now turn to the argument that the balance of payment of the U.S. during the war augurs hopefully for the future. But an analysis of the United States balance of payments during the late war cannot be used for predicting its future development. The United States has become a large scale debtor. .Her short term obligations amounted in October, 1945, to not less than $6,400 millions. On top of this foreign countries held $4,000 millions of gold under earmark and possessed another $4,600 millions worth of marketable U.S. securities (and further direct investments). We must add to this the funds made available by the U.S. indirectly through her contributions to the Bretton Woods Fund and the Bank, as well as direct loans through the Export and Import Bank, or (as in the case of the British loan) by the Treasury and by private bankers. The world's potential reserves of dollars have never been as high as they are now.

No doubt many European economists have been guilty—in their preoccupation with the prospective position of their own countries—of underestimating the very real changes in the international position of the United States capital account during the war. But even if they were guilty of this oversight (and most of them were not) surely they have committed a venial offence only. The United States during the war not merely achieved overfull employment—a condition not likely to persist for long—but, robbed by the Japanese attack of essential supplies and hindered by the German submarine campaign in the access to others, she also invested on a lavish scale in alternative sources of supply abroad—a process which is unlikely to recur. She placed at the disposal of her Allies, Lend Lease supplies of altogether $42,500 millions, supplies which consisted not merely of war-like stores but those necessities of life, the continued production of which on a massive scale is one of the main reasons for the strength of the United States international economic position in peace-time. She initiated purchasing schemes in South America in order to maintain the loyalty of those countries to the cause of hemispheric defence. She bought silver, and put large amounts at the disposal of these and other countries through the Export and Import Bank. Altogether she must have put at the disposal of foreign countries prodigious amounts of money. The balances and other assets now at the credit of foreign countries in the United States are but a small reflection of the gigantic activity of the United States Government during the war. Yet Table I shows the relative ease with which this vast activity was accomplished.

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[1] Cf. M. Kalecki and E. F. Schumacher in ' New Plans for International Trade '. Oxford University Institute of Statistics, BULLETIN, Supplement.

TABLE I.

U.S. BALANCE OF INTERNATIONAL PAYMENTS, 1939–1944.

(In Millions of Dollars).

	1939–41 Inc.	1942–44 Inc.
Goods and Services		
Excess of merchandise exports	+3,407	
Excess of merchandise imports		—1,747
Net services bought (incl. milit. exp.)	—1,076	—3,151
Net goods and service transactions	+2,331	—4,898
Financial Transactions, Capital Movements		
Debt service and dividends (net)	+1,101	+ 945
Long-term capital outflow (—), inflow (+)		
American (net)...	— 156	+ 143
Foreign (net)	— 525	+ 57
Short-term capital outflow (—), inflow (+)		
American (net)...	+ 325	+ 53
Foreign (net)	+1,681	+ 253
Net financial and capital transactions	+2,426	+1,451
Balance of all above Transactions	+4,757	—3,447
Balancing Items		
Loss (+) or gain (—) of gold	—7,685	+2,155
Increase (+) or decrease (—) in foreign official dollar funds... ...	+ 886	+1,615
Residual item, inflow (+), outflow (—)	+2,042	— 323
	—4,757	+3,447

Source : Foreign Commerce Weekly, March 10th, 1945, except the figures for 1939, for which the data from ' The United States in The World Economy ' were used ; the 1939 figures are not precisely comparable with those of 1940–44.

No one has thrown any doubt on the proposition that, if the United States Government could be induced to act in peace as it acted during the war to achieve a common aim, and if that common aim was the maximum economic progress of the world at large, we should really enter a New Era. But can anyone maintain that this is at all likely. And if (as I think most people would venture to say), it is not likely, the figures for the dollar reserves of foreign countries no longer look very impressive.

First of all the distribution of the short term reserves is very unequal. If Canada, some South American countries and the two rich European neutrals have international reserves, that does not help the countries impoverished through war whose reconstruction would offer the best avenue of approach to a truly international policy of full employment. Instead of fearing the United States dollar as the sole potential scarce currency, we merely have to begin to think of several scarce currencies. Moreover, most countries with these potential secondary scarce currencies have large visible surpluses towards the weaker European countries and deficits towards the United States, and so contribute to the threat of a ' multilaterally ' induced deflation in the ' weak ' currency countries.

TABLE II

ANALYSIS BY COUNTRIES OF SHORT-TERM FOREIGN LIABILITIES REPORTED BY BANKS IN U.S.A. AT OCTOBER 31ST, 1945.

		£ million	
I.	*Europe*:		
	U.K.	740	
	France	360	
	Netherlands	228	
	Switzerland	284	
	Belgium	196	
	Norway	183	
	Sweden	213	
	Other European	341	
		—	2,545
II.	*Canada*		1,552
III.	*Latin America*:		
	Brazil	179	
	Cuba	145	
	Mexico	164	
	Argentine	77	
	Colombia	83	
	Panama	64	
	Chile	90	
	Venezuela	40	
	Other Latin America	248	
		—	1,098
IV.	*Asia*:		
	China	592	
	Netherlands East Indies	104	
	Other	312	
		—	1,008
V.	*All Other Countries*		194
			6,397

Source: *Federal Reserve Bulletin.*

Nor must it be forgotten that figures for foreign reserves which look impressive in a world of established international equilibrium are not so decisive in a world which has suffered from the devastation of a second World War. The French Government alone proposes a reconstruction programme involving a deficit of some $6,000 millions in the next six years. Moreover, having regard to the monetary troubles experienced in most countries, some of the gold and dollar reserves cannot be drawn upon, especially on the Continent, as ' confidence ' has to be maintained. I do not venture to estimate the size of these ' blocked ' reserves. They can hardly be less than a third and might represent as much as half of the total.

THE U.S. IN THE WORLD ECONOMY

At this point we might conveniently turn to the second thesis, namely, that the United States balance of payments is likely in future to adjust itself automatically to the new position of the United States, and, therefore, that these reserves will not even be needed to permit other countries to maintain their national incomes.

In the following an attempt will be made to show that there are strong reasons for fearing—

1. that far from tending to restore equilibrium, the consequences of the two wars both on the domestic and the international position of the

United States represent a double threat to the maintenance of balance,

2. and that the forces of laisser-faire which the U.S. proposals for international trade restore will, even if all goes well, tend to stabilize, or even increase, the relative inferiority of the smaller and poorer areas of the world in contrast to the United States.

A number of interesting calculations have been made in the United States and elsewhere about the prospective position of that country in the world economy as a whole. The remarkable analysis of the U.S. Department of Commerce—' The U.S. in the World Economy '[1]—has put the share of the United States in the consumption of nine principal raw materials in 1927–28 at 39 per cent of the total for the 15 most important commercial nations.[2] So far as the volume of industrial production is concerned, the importance of the United States in 1925-9 was 48 per cent. (excluding the U.S.S.R.). The national money income of the United States was equal to that of 23 foreign countries including U.K., France and Germany together. If we were to investigate the investment capacity of the United States at full employment, *i.e.* the flow of voluntary savings at full employment level, we should find that the United States share was even higher, hardly less than two-thirds of the total. No doubt all such international comparisons are subject to many doubts. But we are interested here in the importance of the United States in market relations, and in that respect, the order of magnitude of the United States' share is, on the whole, beyond dispute.

Since then (1925–29) Germany has collapsed, French manufacturing output has declined at least 30 per cent and that of Europe has, in general, suffered a relapse of hardly less than 40 per cent. The Far East has partly gone back to mediaeval conditions and partly been reduced to a fraction of its former importance; in the meantime, gross output in the United States almost doubled. One would not go far wrong if, at a guess, one put the present share of the United States national money income and manufacturing output at some two-thirds of the world total, outside the U.S.S.R. and China, with an investment capacity which can hardly be less than three-quarters of the total. What this means can best be demonstrated by reference to the calculation of the League of Nations of the percentage distribution of the world manufacturing production in earlier periods.[3]

As can be readily seen—especially if agricultural production and services are taken into account, in which the relative importance of the United States share has also spectacularly increased during the Second War—countries outside the U.S.S.R. are faced with a position for which there is no parallel, at any rate since the days of the Roman Empire. Even the paramountcy of the United Kingdom in the final period of the Industrial Revolution—1840–1860—was less complete than the present economic weight of the United States.[4]

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[1] Reprinted by H.M. Stationery Office, London, 1944.

[2] Op. cit. p. 29, on the basis of calculations of the U.S. Department of Agriculture.

[3] *Industrialization and Foreign Trade*, p. 13.

[4] Professor Haberler, who is among the most intransigent protagonists of the classical

TABLE III
MANUFACTURING CAPACITY.
World=100

Period	*U.S.*	*U.K.*	*Germany*	*France*	*Russia (U.S.S.R.)*
1870	23.5	31.8	13.2	10.3	3.7
1881/5	28.6	26.6	13.9	8.6	3.4
1896/1900	30.1	19.5	16.6	7.1	5.0
1906/10	35.5	14.7	15.9	6.4	5.0
1913	35.8	14.0	15.7	6.4	5.5
1926/29	42.2	9.4	11.6	6.6	4.3
1936/38	32.2	9.2	10.7	4.5	18.5

Two consequences follow. The first is that, if in the United States the degree of employment is below the critical level (*i.e.* when efficiency wages become sensitive to pressure from abroad), the maintenance of employment elsewhere will become extremely difficult, as the impact effect of the depressed U.S. industry, because of its overwhelming magnitude, especially in the most sensitive field, capital goods, cannot easily be countrebalanced, at any rate in third markets, under the ' multilateral rules of the game.' At that employment level, moreover, the U.S. price-elasticity of demand for foreign goods is likely to be rather low, and the pressure on the part of both employers and labour to eliminate foreign ' dumping ' or ' slave-sweated ' competition becomes irresistible. If, of course, one could force the depressed country to take the consequences of its depression on herself and maintain her net international demand by a large appreciation of her currency, without upsetting each of the smaller countries in turn, starting a number of separate deflationary spirals, the situation might be different.[1] It is thus not true that it is *merely stability* in the United States (and other large economic units) that is required for a smooth working of a multilateral international system, *but stability at high employment.*[2] A long depression in one country—if the country is big enough—is a perpetual menace to the world economic system, because of the direct and indirect (psychological) pressure it exerts on other countries.

The second implication of the industrial primacy of the United States, its influence on the international division of labour, will be discussed below.

THE PROSPECTS OF ECONOMIC STABILITY IN THE U.S.

We must now turn to the problem of whether stability at full, or at least, high employment levels is at all likely in the United States. We are told *e.g.* by Professor Haberler, that ' it does not seem very useful to speculate which

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school of thought, attacks—rather ingenuously—the British ' heretics ' because they apostatize at the moment when the U.S. at last was converted to the Truth. (*Economic Reconstruction*, Ed. S. Harris, p. 327). He should ponder on the ' coincidence ' that England in 1846, the U.S. in 1946, was persuaded that ' free trade ' was as good morals and economics as it was good business. The resistance then in the U.S. and Germany (where List was imprisoned at the behest of the laisser-faire school) and now in England to this rather simple approach cannot astonish anybody who has some historical sense.

[1] Cf. my paper in *Economics of Full Employment*, p. 142. This also puzzles Prof. Haberler.

[2] Stability even at low employment—if it were possible—would be preferable to violent swings. Cf., however, Prof. Haberler.

countries are likely to succeed best in maintaining economic stability.'[1] Surely doubts about the future trend in the United States are something rather more than 'indefinite fear'. Europeans—even in Britain—live in areas devastated by war and still suffer from reduced standards of living. Their misfortune is their opportunity. The 'backlog' of investment and consumption in these areas will persist for at least a decade, and, even if only part of the reforms decided upon or discussed is realized in practice, demand in these territories will tend to outstrip supply. *Our* problem is to try to find *sufficient savings*, *i.e.* reduce consumption to permit such investment as we must undertake if we are to restore productive capacity.

The United States, on the contrary, succeeded not merely in colossally increasing her capital equipment, but also in increasing her civilian consumption during the war, and even more since.[2] Practically all restraints against speculative excesses have been abolished in that country. Fortunately this has not, as yet, lead to that exuberance which usually characterizes the upward swing in the United States. It is quite possible to have a depression without a boom—in the situation in which the U.S. finds herself after this war. On the other hand, few, if any, of the legislative reforms proposed by the progressive school of economists, in order to mitigate basic instability, have been accepted or have any chance of being accepted in the near future. The post-war relief in taxation benefits savings rather than consumption, and, if this is fitting in the transitional period of inflationary tension unrelieved by controls, it does not augur well for social peace and national unity. It is not likely in these circumstances that the trend of the tax measures adopted can be promptly reversed when increased productive capacity necessitates a relative stimulus to consumption rather than saving. A fraction only of the social measures declared necessary to arrive at a distribution of the national income compatible with greater stability (especially those favouring a redistribution between the States of the Union in favour of the poorer and backward areas), has been passed. The famous 'backlog' of pent-up consumer purchasing power', which was to sustain demand, has melted to relatively small proportions in face of quantitative enquiry; not less than 60 per cent of all liquid assets was found in the possession of 10 per cent of the spending units, and 87 per cent in that of 30 per cent, 70 per cent of the people holding not more than 13 per cent.[3] The sharp rise in prices since July, 1946, not yet followed by a rise in wages, must have further reduced the importance of this stabilizing after-effect of war. At the same time the reconversion proceeded far faster than anyone predicted and, at the moment, employment is at an all time high level for peace-time. Only a continuation of strikes without limit would produce a situation in which foreign countries would be safe from U.S. competition. This is at least unlikely, especially in view of the trend of Congressional opinion.

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[1] Cf. Prof. Harberler, op. cit. p. 329.

[2] These statements do not intend to denigate the role of the United States in winning the war—on the contrary.

[3] *Federal Reserve Bulletin*, May, 1946.

In this connection it will be relevant to recall the estimates of Mr. E. E. Hagen, of the Federal Reserve Board, on the relation of potential demand to the capacity of production at full employment both for 1948 and for a typical year of the middle 1950's. (See Table IV).

TABLE IV

ESTIMATES OF POTENTIAL DEMAND IN 1948 AND OF DEMAND NEEDED FOR FULL EMPLOYMENT.

(In Billions of Dollars)

	Low Estimate	High Estimate
Government expenditure for goods and services	30	30
Consumer, expenditures, including deferred demand	122	126
Housing construction	5	6
Inventory accumulation...	0	2
Net exports	3	4
Plant and equipment	13	19
Total potential demand	173	187
Demand needed for full employment	180	180

ESTIMATES OF POTENTIAL DEMAND IN 1950 AND OF DEMAND NEEDED FOR FULL EMPLOYMENT

(In Billions of Dollars)

	Low Estimate	High Estimate
Government expenditure for goods and services	30	30
Consumer expenditures	132	137
Housing construction	4	5
Inventory accumulation...	1	1
Net exports	0	2
Plant and equipment	17	17
Total potential demand	184	192
Demand needed for full employment	200	200

The first remark which has to be made is that the output capacity seems in both cases to be heavily under-estimated. It now seems more than likely that the $180 billions at 1944 prices estimated for 1948 will be reached much earlier and that the $200 billion limit would—if full employment were to be maintained throughout—be reached not in the middle but in the early fifties.

All estimates assume an extremely high ratio of consumption to disposable income. This appears to be unjustified on the basis of the new statistics of savings. They also assume housing construction figures for which there is no possible justification. The Plant and Equipment figures are also extremely optimistic and based on the 1929 level. *Gross* investment between 1930–39 amounted to $63 billion, *i.e.*at the rate of 7 billions per annum. This has raised productive capacity by something like 20 per cent. Yet in that period there was hardly any *net* investment. It is somewhat dubious to assume that $6 billion *net* new industrial investment will be needed continuously after the war, which has already increased output capacity very considerably. Even in the boom period between 1926 and 1929, net investment was hardly more than $4 billions. In the maximum year, 1929, the figure was $6 billion. At the same time output capacity is assumed to expand at a lower rate than in the pre-war decade. The calculation, moreover, is based even for the 1950's on a net export surplus up to $2 billion—in the earlier years between $3 and 4 billion.

Yet the lower estimate in 1948, and both estimates in the 1950's, disclose a huge net deflationary gap amounting up to 16 billion dollars. Even in the most favourable hypothesis such a gap would involve a multiple decrease in total demand (as all items would have to be reduced further). This is not all. If there should be *any* deficiency in demand, net investment will begin to fall and we shall be confronted with cumulative deflation. It is, of course, true that these calculations are based on a *balanced* Federal Budget and a very small Local loan expenditure, and the gap might be closed by a sufficient increase in net Government borrowing. The problem is, how much Government deficit will the American ideology tolerate on the one hand, and how much these estimates err on the favourable side on the other.

If we contrast the considerable increase in capital intensity in the United States during the war with the comparable loss in capital equipment in Europe, it appears by no means unreasonable to anticipate that future depressions will originate in the U.S. rather than elsewhere. It does not imply a disparagement of the economic statesmanship in the United States. It is a recognition that her favoured position poses problems which are difficult to solve on the basis of the rules of the game on which public opinion (or at least political opinion) insists in that country.

The panics of the last century admittedly centred on the unsettled conditions of Britain, even if—on occasion—the last impact was supplied by some breakdown in weaker overseas countries. In a non-planned economic system success necessarily carries its own punishment. The problem which must be faced by less favoured countries is whether they can afford to pay this price which is necessarily disproportionate for them because they do not share fully the prosperity which is the direct cause of the disequilibrium,

The Contrast with XIX Century Britain

This conclusion is further strengthened if we recall that the United States has a much more powerful impact effect on the world than England possessed (except perhaps for a short period in the middle of the century). If we analyse the difference in the relation of the foreign trade and balance to the total national income of England of pre-1914 and the United States of to-day respectively, the difference is striking.

The estimates of the future balance of trade and payments of the United States show startling variations. There can be no question that the war has made the United States more rather than less self-sufficient. If some reserves have been exhausted, the vast increase in importance of new metals and plastics (including artificial rubber) has much more than offset this change. In all modern techniques the U.S. has gained a substantial advantage. At the same time she also underwent an agricultural renaissance. Her merchant fleet has vastly increased, and for obvious reasons, tourist trade and emigrants remittances will not play a balancing role for a long time to come. (From a

European point of view, Mexico and Canada are part of the U.S. currency system).

At any rate the current trade returns tend to justify the pessimistic rather than the optimistic view. It is true that almost half of the favourable trade balance—$190 out of 392 millions—is accounted for by Lend-Lease and UNRRA shipments. But when these come to an end a large part of the exports they comprise will continue, whether financed by loans or by drawing on reserves.

Table V

U.S. Trade by Countries

(Monthly Averages in Millions of U.S. Dollars)

	Exports (incl. re-exports)		Imports		Balance of Payments	
	1936–8	March-April 1946	1936–8	March-April 1946	1936–8	March-April 1946
United Kingdom	41.6	74.5	14.5	13.0	+ 27.1	+ 61.5
Canada	37.8	100.9	28.7	68.0	+ 9.1	+ 32.9
20 American republics	40.4	152.5	45.2	149.1	— 4.8	+ 3.4
Continental Europe	60.6	289.1	44.3	45.4	+ 16.3	+243.7
Asia and Oceania	49.1	106.6	65.7	78.9	— 16.6	+ 27.7
Union of South Africa	6.4	19.0	1.0	17.0	+ 5.4	+ 2.0
Total (incl. others)	247.2	786.4	207.4	394.7	+ 39.8	+391.7

Source: *The Economist*, August 24th, 1946.

It is quite clear that the U.S. balance of payments will bear a relationship to the flow of savings at full employment altogether different from that in pre-1914 Britain, unless, as we shall argue below, the political stability of the outside world is to be imperilled. And the assumption in Table IV that net savings would account for slightly more than 10 per cent only of the national product is injudiciously optimistic. A figure of between $25–30,000 millions for net savings would be much more to the point—especially after the revelations of the Federal Reserve Board on the morphology of war-time savings. But even if we take a low figure for net savings at full employment and a very high figure for exports and imports it seems clear that the former will be several times higher than the latter. To affect the internal position of the United States foreign loans on a very large scale would be needed especially relative to the wealth of foreign countries and the prospects for repayment. The pre-1914 British case was in complete contrast to this. Foreign trade was much greater than the volume of total savings at full employment. An alteration in the foreign balance thus had an immediate and considerable effect in Britain, setting in train an offsetting cumulative process. This inter-dependence of foreign and home trade was the factor which provided the mechanism tending to restore equilibrium without which ' free multilateralism ' implies an intolerable strain. This is no longer the case.

TABLE VI
NATIONAL INCOME SAVINGS AND FOREIGN TRADE

	U.S. 1948 million £		*U.K. 1911 million £*
Gross national income	180,000	Net income	1,988
Savings	18,000	Depreciation, etc.	185
		Gross income	2,173
		Savings	414
Imports (net)	5,000— 6,300	Imports	577
Exports	7,000— 14,500	Exports	454
Balance of trade	+2,000— 8,200	Balance of trade	—123
Balance of international payments	+1,000— 7,000	Balance of international payments	+194

This is not surprising. The United States is a continent, Britain was a small country where relative wealth depended on foreign trade. The U.S. must not be 'blamed' for this disharmony. It is yet again an awkward foreign aspect of a well merited prize which falls to those who successfully organize a large area under a common economic system. But it behoves those who were not as successful to beware lest they should be even more penalized.

THE IMPACT OF THE U.S.

We might sum up the answers to our first question :

1. The importance of the United States has increased to such an extent that she can no longer be considered one among many equivalent units in a world economic system.
2. The difficulties of maintaining stability in the United States have increased as a result of the war and are, at the moment, different in order of magnitude from those experienced by other countries.
3. The relationship of the United States foreign balance to the total potential flow of savings at full employment is so unfavourable as to preclude the possibility of foreign investment serving as an important factor in maintaining full employment for the U.S.

There is, then, little justification for assuming, that 'the United States is becoming a high-living, high-cost country'[1] in a quasi-static sense. As long as a high level of employment is maintained we might indeed look for wage and price increases. But the critical time to test the "new equilibrium' is after the onslaught of depression. It would be a brave man indeed who dared to predict that the 'high costs' in the sense of high efficiency wages relatively to the world would persist in the United States. Nothing that has happened in the U.S. since the death of Roosevelt, could be made to justify this expectation.

In recent months—especially after the Canadian and Swedish revaluations —much speculation was caused about the future of the dollar by the rising level of wages and prices in the U.S. These notions have not been supported by facts as has been shown by calculations undertaken by the *Economist*[2]

[1] Ibid., p. 185.

[2] August 10th, pp. 221 and 226.

In a number of important instances, notably steel prices, the U.S. position was demonstrated to compare favourably with the U.K.[1] And if food prices have risen sharply in the U.S., this should, for some time to come, strengthen rather than weaken the U.S. balance of payments.

But even had wages risen more sharply in the United States than in Britain, the problem remains whether this rise was faster than that justified by the quicker technical progress in that country. The grave dilemma facing the protagonists of the classical school is that they either have to envisage prodigious investment acitvity in the U.S. which increases the competitive power of that country faster than productivity rises elsewhere, or continued depression which makes nonsense of the classical mechanism of adjustment towards a ' creditor position '. An escape from this dilemma could only be found if U.S. savings were used for foreign investment—a case with which we shall deal presently, or if U.S. business activity were maintained by social reform or ' non-productive ' Government expenditure. But even in these cases—given the initial startling superiority of the U.S. and the aggressiveness of its managerial leadership—it is likely that technical progress will be faster in the U.S. than in other countries adhering to the ' classical ' rules of the game. The old theory is based on the ' see-saw model ' of full employment economics combined with (simultaneous) inflations and deflations in the respective countries. It never envisaged a state of oligopolistic competition in international trade largely dependent upon relative money wage levels determined by the relative bargaining power of Trade Unions and employers' associations. There is no reason to suppose that U.S. Trade Unionism will be relatively stronger than its European counterparts.[2]

FOREIGN INVESTMENTS

There remains the possibility of the United States using her overwhelming investment capacity to mitigate the inequality of the present distribution of the riches of the world by foreign investment. As Table VI demonstrates maintenance of favourable economic conditions at home and abroad would seem to imply a steady excess of exports over imports of at least \$5,000—10,000 millions p.a. rising with the increase of the U.S. national income. In other words the U.S. would have to lend \$5—10,000 millions while reinvesting repayments and that part of the interest payments which does not give rise to internal consumption. (All this on the assumption that no internal reform takes place in the United States). If the lower figure is adopted (rather optimistically with respect to the development of the other items in the U.S. national income) it is equivalent to the total investment in

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[1] The change in the U.S. price structure was restricted to these prices. The general index of the Bureau of Labour Statistics rose from 105.7 on August 11th, 1945, to 127.1 on August 10th, 1946. The rise of farm products was from 128.3 to 162.3 of food from 106.9 to 144, and other commodities from 99.9 to only 110.8.

[2] Even in agriculture where she is relatively less efficient the U.S. seems to be gaining ground. Cf. the *Economist* (August 17th, 1946, p. 251) on Mr. Rostas' article in the July, 1946 issue of the *London and Cambridge Economic Service.*

Britain (again measured very optimistically) or to perhaps one half of the investment of all countries outside U.S. and U.S.S.R.

In other words, the yearly increase in U.S. foreign assets must, in order to be effective domestically, be equivalent, once 'normalcy' has been attained, to *the total non-American contributions to the World Fund and half of the total lending powers of the World Bank*, increasing subsequently with the increase of national income and also at compound interest. To envisage these orders of magnitude is sufficient to accept them as a *reductio ad absurdum*. Nor must it be forgotten that the Fund is not to serve as a long-term source of finance and that the Bank is only to lend on ' sound projects '.[1] The accumulation within a space of a score or so years of foreign assets running into hundreds of billion dollars, yielding some 2½ per cent to 3 per cent at least, is altogether out of the question. Nor would it be permitted by the borrowers themselves, who would pass under an absentee economic domination of the U.S. which would become politically and socially quite intolerable. The ' liquidity approach ' to multilateral full employment belongs to the realm not of utopias but nightmares. In any case there is not the slightest warrant to claim that the accepted compacts permit this approach.

If, indeed, an International Investment Board were to be set up which were permitted to create internationally acceptable purchasing power and direct investment policy (in the sense of directing also the contracts necessary consequent on the planned international investment policy) the position would be different. The creation of a Fund does not mean the creation of outlay.[2] But there is little hope at present that an International Authority answering these conditions would be established.

Non-discrimination and the Poor Areas

There remains a final problem to which allusion has already been made—the problem as to whether or not the division of labour between the nations, which would come about as a result of the classical interplay of forces (*posito, non concesso* it functioned) could be regarded as satisfactory from the point of view of the smaller and poorer areas. The problem can be put in different words: can the principle of ' non-discrimination ' be accepted, in a world of such unequal national economic units, as equivalent to the principle of ' equal opportunity ', or would it lead to a domination of one country by economic (as opposed to military) force (or ideological affinity)? Can the principle of comparative cost be applied—apart from the problem of underemployment—on the basis of current private money costs in countries at widely differing stages of social and economic development?

The theoretically simple case in which money demand expresses social needs and where optimum supply is determined by free competition is, in practice, rare in the extreme. In all other cases, however, long run real social cost is not equal to current money cost and, what is more important, cannot be made equal by a simple policy of tariffs and subsidies. The classical analysis completely disregards the vitally important influence of risk, especially of the risk differential between home and foreign trade. The existence of a large home market, protected, if by no other more direct interference, by taste and connections, which enables the development of mass-production methods, secures advantages which cannot be challenged except by a country having complete State monopoly of her foreign trade and, even then, only if she concludes reciprocal purchase agreements. The scale of industrialization of a country as a whole is one of the most important determinants of costs. From this point of view the whole industrial structure of a smaller or poorer country can be regarded as ' infant '. This is not to say that really unalterable comparative differences between countries will not continue to exist. They certainly will. But any division of labour between countries founded on comparative social differences (including capital intensity) which are alterable by policy will tend to stabilize inequality and has therefore to be rejected as a criterion of policy.

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[1] Cf. my article on ' Some theoretical problems of post-war foreign investment policy.' Oxford Economic Papers, No. 7, 1945, especially pp. 109–110.

[2] Cf. my criticism in the *Economics of Full Employment*, p. 159.

A liberal migration and lending policy would certainly render these inequalities between countries less intolerable than they are, but would not solve the problem altogether. It would need to be supported by the creation of more equal trading partners—by permitting smaller and poorer areas to form regional units—to diminish inequality and the resultant tension. The general principle of non-discrimination, to work fairly, requires a specific structure of the world economic system and the existence of equivalent economic units. Such structure does not now exist and the proposals now under discussion would render its establishment impossible. (Especially as there seem to be certain ' legitimate exceptions ' to non-discrimination—tied loans, subsidies, etc.—which all tend to give ' to him who hath '). Yet only the conviction that a visibly just order is being established will bind the nations together and will induce them to accept sacrifices whenever the ' rules of the game ' so decree. The differences in the standard of life and economic power between the nations will, in any case, present awkward problems. But if the poorer countries begin to suspect that—under the guise of attractive slogans—their relative and absolute inferiority is to be stabilized and their social stability is to be sacrificed to renewed economic fluctuations, there remains little hope that they will keep their bonded word.

T. BALOGH.

SIZE AND SUCCESS IN RETAIL DISTRIBUTION

INTRODUCTION

The tentative conclusions presented at the end of our previous article[1] call for a detailed explanation of the advantages which the large retail distributor enjoys over his smaller rival. The appraisal of these advantages—whether they are beneficial, detrimental or merely neutral to the consumer—is left for later discussion.

A. THE THEORETICAL AND PRACTICAL PROBLEM OF MEASURING THE SIZE-SUCCESS RELATIONSHIP.

1. *Establishing a criterion of success.*

The success of an enterprise has been traditionally measured by the amount of its net profit, *i.e.* Total Revenue *minus* Total Costs. Criticism of this analysis is now largely centred upon its inability to suggest how, in oligopolistic conditions, the enterprise estimates the effects of its present price policy (via the reaction of both rivals and consumers) upon its future sales. But attention should also be drawn to the fact that it is the *rate* of Net Profit (measured in relation to capital invested) that ultimately decides the fate of the enterprise. While it is clear that the maximization of the *amount* and the *rate* are identical in the *special* case of a *fixed* amount of capital already invested, we are concerned with the more general case[2] where the amount of capital varies as well as the output. We therefore define success in terms of Net Profit Rate on capital invested.

2. *Practical difficulties in measuring New Profit Rate.*

In practice, it is seldom possible to make direct comparison between the Profit Rates of different sizes of firms. Two difficulties arise. The first is to isolate satisfactorily from the combined effect of all the factors determining profit rates precisely those effects which are due to size alone. Among the very large number of such factors, whose influence in some cases is known to be considerable, may be mentioned—kind and quality of merchandise, locality, number and income-level of potential customers. There may be others whose existence is not known, but which individually or collectively are sufficiently important to invalidate any conclusions based on ignorance of their existence.

To isolate the effect of the desired factor—namely, for our present purpose the effects of size—involves a great deal of cross-classification. In the smaller samples examined in this enquiry, the sub-groups obtained by cross-classification are so small that averages based upon them are unreliable; in the Census material, drawn from whole countries, a systematic classification of data according to size of business is not undertaken at all.

The second difficulty arises both from the natural unwillingness of enterprises to publish their profit rate in a completely unambiguous form, and from the absence of an accepted and uniform method of measuring, for example, Capital Invested, Operating Expenses or Net Profit.

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[1] v. BULLETIN, Vol. 8, No. 8.

[2] In the empirical cost data introduced later, we are compelled for practical reasons to measure the size of an enterprise by its sales. It is clear that in so doing we are abstracting from problems concerned with the degree of utilization of capital equipment.

It has therefore been necessary to measure Net Profit Rate indirectly, by splitting up into their component parts, the numerator and denominator of the ratio Net Profit/Capital Invested.

Net Profit itself may be defined as the residue from Sales after paying Invoice Costs and Operating Expenses; similarly, for any particular sale, the Net Margin is what is left of the Retail Price after covering Invoice Cost and Operating Expenses. Gross Profit and Gross Margin include Operating Expenses and Net Profit and Net Margin respectively. These definitions are set out in the following diagram :

FOR TOTAL SALES :

Net Profit Operating Expenses	Gross Profit	Total Sales
Invoice Costs		

FOR A PARTICULAR SALE :

Net Margin Operating Expenses	Gross Margin	Retail Price
Invoice Cost		

We have considerable information as to the manner in which these items relating to Net Profit vary with size of enterprise. But when we turn to the denominator of Net Profit Rate, namely the quantity of Capital Invested, we find that information is very rarely available in published material. It is therefore impossible to obtain direct evidence on the question how the Net Profit Rate varies with the size of enterprise.

But the Net Profit Rate (π) is itself the resultant of three factors, about each of which we do have evidence :—

(i) The Percentage Net Margin : Namely, Net Profit (P) as a percentage of Total Sales. This ratio we denote by N.

(ii) The Rate of Stockturn : namely the ratio of Total Sales to stocks;[1] this ratio we denote by U_1.

(iii) The degree of fixed[2] capital use : namely the ratio of Total Sales to fixed capital—this we denote by U_2.

It is easily shown[3] that the Net Profit Rate depends upon the three factors according to the equation :

$$\pi = \frac{N}{\frac{1}{U_1} + \frac{1}{U_2}}$$

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[1] Stocks are valued either at Invoice Cost or at Retail Price. In some material the valuation is made at a single date, in others it represents the average for two dates (*e.g.* beginning and end of the year). No method is entirely free from objections.

[2] 'Fixed' capital has been used as a convenient name for all other capital in addition to that invested in stocks.

[3] Let S be Total Sales, P be Total Net Profit, K_1 be Stocks, and K_2 be fixed capital.

We shall bring evidence to show that each of the three influences N, U_1 and U_2 usually increase with the size of enterprise and so cause the Net Profit rate to increase with size of enterprise. For we shall argue firstly that the Percentage Net Margin is usually higher for large than for small enterprises; we shall also show that the Rate of Stockturn is higher for large enterprises, and finally we shall argue that fixed capital is no less intensively used in large than in small enterprises. Thus the larger the enterprise, the higher are N, U_1 and U_2, and, as a result, the higher is π itself.[1]

Summarising, therefore, we enumerate the factors which influence the Net Profit Rate as follows :—

(1) The Retail Price.

(2) The Invoice Cost, and hence, by subtracting (2) from (1), the realized Gross Margin.[2]

(3) Total Operating Expenses (and, hence, by the subtraction of (2) + (3) from (1), the (realized) Net Margin.

(4) the money volume of sales in relation to capital invested in fixed equipment and stocks (to which we have regarded Rate of Stockturn as a reasonable approximation).

For the purposes of subsequent analysis we divide these four variables into two groups, those where the advantages of size arise mainly from a monopolistic or monopsonistic position—namely Retail Price and Invoice Cost, and those where the advantages of size lie mainly in the economies of scale—namely Operating Expenses and Rate of Stockturn.

B. THE MONOPOLISTIC AND MONOPSONISTIC ADVANTAGES OF SIZE.

1. *Higher Prices.*

Since all the variables—Gross Margin, Net Margin, Invoice Cost, Operating Expenses, and Rate of Stockturn are usually given in our data as proportions of Retail Price, comparisons by size of store or organization must take into account possible differences in price, if misleading conclusions are to be avoided.

The difficulties of comparing the prices charged by different enterprises are very considerable; in certain classes of merchandise (*e.g.* women's clothes) product differentiation, in the quite limited sense of ' quality ' and ' form '

(Note 3 continued from previous page.)

$$\text{Then}: \; N = \frac{100\,P}{S}, \; U_1 = \frac{S}{K_1}, \; U_2 = \frac{S}{K_2}, \; \pi = \frac{100\,P}{K_1 + K_2},$$

$$\text{whence } \frac{1}{U_1} + \frac{1}{U_2} = \frac{K_1 + K_2}{S}, \text{ and } \pi = \frac{N}{\frac{1}{U_1} + \frac{1}{U_2}}$$

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[1] The argument has been stated somewhat dogmatically in order to bring out clearly the method of procedure. It should be regarded as a special case which will be extended later to include the completely general case where N and U_2 may either or both decrease with an increase in the size of enterprise.

[2] This is not identical with the planned or initial Gross Margin ; it will in fact usually be lower, because of the need to lower Retail Price as merchandise (especially perishable) deteriorates or becomes obsolete.

variations, is widespread; but even when fixed price branded goods are considered, differentiation in more subtle ways exists between stores selling an apparently homogeneous product. The manifold forms of imperfection in retail trade make one treat with caution any claims by retailers that their prices are determined by competition.[1]

While material to show the extent of price differentials is scarce, there is some evidence, so far as concerns size of organization, from sample enquiries of wide scope into both the comparative prices and quality of products sold by two types of organization—chain store companies and independent retailers. This evidence[2] ' . . . tends to establish the fact that, on the average, chain stores can and do sell at prices lower than the prices charged by independent retailers or even co-operative chains.[3] This is illustrated in the data of Table I, which are typical of many examples quoted in the Commission's Report.

TABLE I

Average grocery prices of chains and independents compared in four cities.

City	Index of selling prices in terms of chain prices. *Chain*	*Independent*
Washington	100	107.310
Memphis	100	105.985
Detroit	100	107.232
Cincinnati:		
Large chains...	100	106.35
Small chains	100	105.74

Source: F.T.C. op. cit Document 4. The dates of the individual enquiries are not stated, but the enquiry covers the years 1929–33.

There is also some evidence (v. Table 2) that the larger chain companies charge lower prices than the smaller for an ' identical ' product.

TABLE II

Comparison, on the basis of 223 identical items, of selling prices for independent dealers, small chains, and large chains in Detroit drug stores (1931).

	Independents	Chains of less than 10 stores	Large chains *A*	*B*	*C*
Total Selling Price ($)	126.50	125.53	113.66	112.10	111.32

Source: F.T.C. op. cit. Document 96.

It would be inadvisable to conclude from these examples that chain-store prices are always lower; firstly because our data are limited to one year, which so far as the drug-store example is concerned was a depression year, 1931. It is not impossible that the chain-store companies, who, with large overhead expenses would be most severely affected by working below capacity, embarked upon a deliberate policy of price reductions in order to expand their sales, or at least to prevent too rapid a decline on a shrinking market, as they in fact did.[1] Secondly, as already indicated, 'identical' products are ambiguous, for in these examples there is no evidence of the respective quantities or qualities of services supplied by the three groups of stores.

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[1] The evidence of one chain store company official before the U.S. Federal Trade Commission on Chain Stores reads : ' In a broad way pricing depends upon what the traffic will bear. What the traffic will bear depends upon a number of factors—what consumers will pay, what it costs to put the merchandise in the stores, and what competition will allow.' 68 chain companies, of the 480 which admitted to a price policy, state simply that ' their prices are determined by competition.' (v. Fed. Trade Commission op. cit. Document 85).

[2] Federal Trade Commission op. cit. Final Report.

[3] *i.e.* organizations of independent retailers for the purpose of joint buying or advertising.

The existence of market imperfections, however, while making permanent price differentials possible, has not prevented price reduction from remaining, as the growth of chains bears witness, the most effective form of competition.[2] The advantages of chains cannot therefore be attributed to monopolistic price fixing.

It is unfortunately not possible to make similar comparisons of the prices charged by different sizes of independent stores. British war-time data for a large sample of Department Stores show that the share of 'Utility' goods in total sales declined as the size of store increased (Table 3)[3], thus implying that the average retail prices were higher in the larger stores. This is, however not very significant in the absence of information about the quality of merchandise and accompanying services.

2. *Lower Invoice Cost.*

'It can be said that lower selling prices are a very substantial if not the chief factor in the growth of chain-store merchandising, and that lower buying prices than are available to independents are a most substantial, if not the chief factor in lower selling prices.'[4]

In classifying lower Invoice Cost as a monopsonistic advantage we do not overlook the real external economics which the bulk purchases of chain-store companies enable their manufacturers to effect. Both elements are undoubtedly present in the discounts given to the large buyer; the manufacturers, in their evidence before the Federal Trade Commission, not unnaturally emphasised the exploitative element.

The extent to which lower chain-store selling prices depend upon their power to obtain greater discounts can be simply indicated by the ratio :

$$\frac{\textit{Difference in buying price of independents and chains}}{\textit{Difference in selling price of independents and chains}}$$

The size of this ratio is indicated in Table 4, which also shows the wide range of discounts received by two different sizes of chain operating in the same city.

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[1] v. the evidence (BULLETIN Vol. 8, no 8) of cyclical movements in chain-ratio.

[2] The economic advantage of chain stores in the way of lower selling prices is illustrated by the fact that in the smaller towns at least people of lower means patronize chain stores to a greater extent than do those with larger incomes. Those who state that they buy more than half from chains amount to about 17 per cent of the people with larger means replying to the Commission's enquiry, 22 per cent in the medium group, and 35 per cent of those with smaller means. The most frequently stated reason for patronising chain stores is lower prices, and no other reason for buying from chains approaches it in importance. The reason most often advanced for buying from independents is credit, followed by delivery services, and by loyalty to local enterprise.

[3] The total sales of this sample were £54.84 million.

[4] F.T.C. op. cit. Document 4.

Chains receive a much higher proportion of all allowances paid by manufacturers than is warranted by their share of the manufacturers' total business (v. Table 5), thus showing that they are obtaining a higher percentage discount than wholesalers.

Of the manufacturers interviewed in the grocery trade 76 admitted that some form[1] of preferential treatment was given to chains; 33 stated positively that threats and coercion had been used by the chain-store companies to obtain preferential treatment. All these cases of threats and coercion, however, seemed reducible to statements or intimations to manufacturers that

TABLE III

Utility goods as a proportion of total sales in a sample of Department Stores 1943–4.

Size of Store : Annual Net Sales £	Cash Businesses (Eng. and Wales)	(Scotland)	Credit Traders (Great Britain)	Men's Outfitters (Great Britain)
Up to 2,500	73.71	69.09	67.00	78.90
2,501— 5,000	71.93	71.53	69.17	67.27
5,001— 10,000	74.54	64.50	68.31	68.22
10,001— 25,000	64.97	60.27	72.11	59.84
25,001— 50,000	66.51	80.00	66.00	76.91
50,001—100,000	61.12	29.44	69.24	—
100,001—250,000	56.03	—	67.71	39.17
250,001—500,000	50.43	—	70.00	—
Over 500,000	40.00	15.00		

Source : Retail Distributors' Association Incorporated : Operating Expenses Enquiry 1943–4.

TABLE IV

Proportion of Chain selling price advantage represented by Chain buying advantage in two kinds of merchandise and four cities.

	Grocery	*Drug*
Detroit	34.4%	12.1%
Memphis	45.3	5.65
Washington	32.8	13.5
Cincinnati :		
2 large chains	18.6	8.5
2 small „	6.2	

Source : F.T.C. op. cit. Document 4.

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[1] The character and relative importance of these allowances is briefly indicated below :

Kind of merchandise	No. of manufacturers granting preferences to chains	Nature of allowances :—					
		Promotional allowances	Special Discount	Brokerage	Freight allowances	Special Prices	Miscellaneous
Grocery	76	48	30	24	—	13	6
Drug	36	31	15	—	4	—	—
Tobacco ...	16	10	13	—	—	—	—
Confectionery ...	10	7	5	1	—	—	—
Total	138	96	63	25	4	13	6

Source : F.T.C. op. cit. Documents 86, 89, 94.

unless the required concessions were granted, the chain store would either enter upon the manufacture of the goods in question for itself, buy them from some other source, or discourage the sale of the manufacturer's products.

These buying advantages are naturally not confined to chains; differences in wholesale price according to the size of the order placed are a well-known feature of retail trade, so that large independents possess comparable advantages vis à vis their smaller competitors. But even the largest independent single stores (*e.g.* Department Stores with annual sales of more than £1 million) are not so favourably placed as a chain of comparable size (*e.g.* a ' small ' chain of 10—20 stores) because their lines of merchandise are more varied, and their orders in any particular line smaller than those of a chain selling a more limited range.

3. *Higher Percentage Gross Margin.*

Since Gross Margin (G)=Retail Price (P) *minus* Invoice Cost (I) it would follow that, with a homogeneous product sold at the same price, the chain stores (and by implication all large stores) which have lower Invoice Costs, must be selling at a higher Percentage Gross Margin (PGM) than independents[1] (and by implication small stores). The evidence however, in the chain field, is all to the contrary, as is shown in data (Table 5) collected from chain and independent grocery stores in one city, and from all chains[2] covered by the Federal Trade Commission's sample (Table 6).

TABLE V

Percentage Gross Margin of Chain and Independent grocery and drug stores, Washington (August, 1929).

P.G.M. of a series of items : Average	*Chain*	*Independent*
Unweighted	23.25	26.24
Weighted by chain-store sales volumes	18.99	23.01
Weighted by independent store volumes	17.70	20.88

Source : F.T.C. op. cit. Document 4.

TABLE VI

Percentage Gross Margin by size of chain, all kinds of chains combined (average of years 1913–30).

No. of stores per chain	*2–5*	*6–10*	*11–25*	*26–50*	*51–100*	*101–500*
P.G.M.	33.09	32.16	32.56	32.78	30.37	29.41
No of stores per chain	*500–1000*	*Over 1,000*				
P.G.M.	26.51	22.59				

Source : F.T.C. op. cit. Document 40.

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[1] $$PGM_L - PGM_s = 1 - \frac{I_L}{P_L} - \left(1 - \frac{I_s}{P_s}\right) = \frac{I_s}{P_s} - \frac{I_L}{P_L};$$

if $P_L = P_s$, and $I_L < I_s$, it follows that $PGM_L > PGM_s$.

[2] Despite greater coverage, these figures are not so conclusive, as the largest group of stores is unduly weighted by one grocery chain, and P.G.M. in grocery is unusually low. The Commission, however, concludes that ' the number of kinds of merchandise in which there is some tendency towards a positive association of Percentage Gross Margin and size is appreciably *less* than the number of those showing a negative correlation tendency ' (F.T.C. op. cit. Document 178).

It follows therefore from this evidence that the larger chains have lower prices than the small, and chains as a whole have lower prices than independents. Thus our previous direct evidence of comparative prices (para (1)) is confirmed.

The prices charged by large and small stores among independents cannot be so easily compared. If we assume the larger stores to have some buying advantage, then their price policy will determine whether they show greater Percentage Gross Margins than smaller stores with a smaller buying advantage; it can be shown that the Percentage Gross Margin of the larger stores is greater than that of the smaller stores only if the ratio of their Invoice Costs is greater than the ratio of their Retail Prices.[1] In this field there is no direct evidence either of Retail Prices or Invoice Costs, and the *a priori* unpredictable behaviour of Percentage Gross Margin is evident in data for both the United States and the United Kingdom (Table 7). There is a decided positive correlation between size of store and Percentage Gross Margin in the U.S. figures, but none in those for the United Kingdom.

TABLE VII

Percentage Gross Margin, by size of store, in U.S. and U.K. Department Stores (1935).

Size of Store Annual Net Sales (£)	Percentage Gross Margin U.S.	Percentage Gross Margin U.K.
less than 100,000	32.1	30.4
100,000—250,000	33.2	29.8
250,000—500,000	34.1	30.2
500,000—1,000,000	35.3	31.0
More than 1,000,000	36.4	31.1

Source : Annual Interim and Final Report on the operating costs of Department Stores, prepared jointly by the Retail Distributors Association, the Bank of England, and the London School of Economics, 1931–38.

The problem of price and margin policy under oligopolistic conditions is clearly complex, while, as we have already seen,[2] price competition cannot be altogether ruled out, the prevalence of price rigidities and conventional mark-up policies[3] is well known. Under these conditions competition takes the form of trying to increase the sales volumes of a particular enterprise. For given the assumption of rigid retail prices, and given the elasticity of demand for a whole group of products, the quantity of products which can be sold by the group is also given. The only way therefore to increase the sales of a particular enterprise is by attracting customers away from competitors. Whether or not this course is profitable depends upon how the larger volume of sales affects Selling Costs and capital outlay. In general it is likely that Selling Costs per unit of sales will increase, and Net Margin per unit decrease, *unless* the larger scale of operation enables an offsetting reduction to be made in other Operating Expenses. It is probable also that Invested Capital will increase. The precise conditions for an increase in Net Profit Rate as sales increase can most clearly be set out in symbolical form.

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[1] The condition for $PGM_L > PGM_S$ is that $\frac{I_S}{P_L} - \frac{Is}{PL} > O$, which can be written $\frac{I_S}{I_L} \Big/ \frac{P_S}{P_L} > 1$.

[2] ' Chains are quick to deviate from this (*i.e.* " mark up " policy) in order to meet any competition which is offered in local neighbourhood ' (T.N.E.C. Investigation into the Concentration of Economic Power Monograph 35). The writer has recently observed an identical article in two stores of a large variety chain priced at 3s. 4d. in Birmingham and at 3s. in Oxford !

But the fact that chain prices were lower for identical articles does not prove either:

(*a*) that their prices *in general* were lower than those of independents ; these particular branded goods may have been deliberately cheapened as part of a ' loss-leader ' policy to attract customers, while other articles—unbranded or ' own brands '—were no cheaper than those sold by their competitors ; or

(*b*) that the identical articles were accompanied by the same services in chain as in independent stores.

[3] Of 480 chain store companies investigated by the Federal Trade Commission, 51 per cent (covering 66 per cent of all stores) stated that they followed some mark-up rule. v. F.T.C. op. cit. Document 85. Percentage Gross Margins appear to possess great stability. Over the years 1931—37 the average annual percentage change in P.G.M. for the U.K. Department Store sample was ±0.9 per cent, compared with +2.8 per cent for Net Sales, ±1.2 per cent for Operating Expenses, and ±6.7 per cent for Percentage Net Margin.

If π is the Net Profit Rate, then $\pi = NU$[1] where N is the Net Margin per unit, and U is the ratio of Total Sales to Invested Capital.

There are some grounds for supposing that both N and U will increase with the size of enterprise; if this is the case, then π also must increase with the size of enterprise.

It can be shown[2] that the elasticity E_π of π to the volume of sales is given by the equation $E_\pi = E_N + E_U$, where E_N is the elasticity of Net Margin to the volume of sales, and E_U is the elasticity of U, (the ratio of sales to capital) to the volume of sales.

It is difficult to estimate E_U precisely, but since about 40 per cent[3] of the capital employed in retail trade represents stocks, and since the ratio of stocks to sales is a decreasing function[4] of sales-volume, and since 'other' capital remains in a fairly constant ratio[5] to sales, hence it can be said with some assurance that total capital will be a smaller proportion of sales as sales increase. Empirical evidence[6] enables us to give an approximate value $E_U = +0.3$.

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[1] Since $U = \dfrac{\text{Total Sales}}{\text{Invested Capital}}$ and $N = \dfrac{\text{Net Profit}}{\text{Total Sales}}$ $\pi = \dfrac{\text{Net Profit}}{\text{Invested Capital}}$.

[2] Since $\pi = NU$, $\log \pi = \log N + \log U \therefore \dfrac{d \log \pi}{d \log x} = \dfrac{d \log N}{d \log x} + \dfrac{d \log U}{d \log x} = E_N + E_U$.

[3] The ratio of stocks to total capital varies from one kind of merchandise to another (*e.g.* from ¼ in food to ⅜ in clothing), and according to whether or not stores are operated in rented premises, and whether they grant credit. The percentage distribution of capital in all retail stores covered by the Canadian Census of 1923 was as follows :—

		per cent
1.	Cash on hand and in the bank	5.7
2.	Accounts due	20.3
3.	Furniture and fixtures	7.2
4.	Delivery equipment	2.1
5.	Real Estate	23.8
6.	Merchandise on hand	40.9
	Total Capital	100.0

[4] This is, perhaps, the least controvertible assertion one can make in the retail field.

[5] If the relation between size of store and the ratio of Sales to 'Other Capital' is analysed for each of the ten kinds of merchandise given in the Seventh Census of Canada, no marked positive or negative correlation appears.

[6] In the Food Group, for example, an increase in the size of store from $7,000 to $14,000

The value and sign of E_N will depend upon how far the increased Selling Costs necessary to maintain an increased volume of sales are offset by any reduction in other Operating Expenses (i.e. net of Selling Costs) which the increased scale of operation makes possible. In the U.K. Department Store sample other Operating Expenses do fall more rapidly with an increase in sales than Selling Costs rise, giving as an approximate value[1] $E_N = +0.25$.

Since $E_U = +0.3$, we can be certain that $E_\pi > 0$, *i.e.* that the Net Profit Rate is greater for larger than for small enterprises, *unless* $E_N \geq -0.3$, that is unless the elasticity of Net Margin as sales increase is actually negative and numerically ≥ 0.3. While for the sake of formal completeness we do not exclude this possibility, nevertheless all the evidence is against such a conclusion.

In brief, this analysis has shown that even with fixed Retail Prices and Gross Margins, the larger enterprise will obtain a larger Rate of Net Profit because its lower Operating Costs (net of Selling Costs) enable it to spend more on publicity and other means of attracting sales. In fact, given the predominance of product competition, important monopolistic advantages derive directly from the economies of scale.

C. Economies of Scale in Retail Trade.

1. *Theoretical Aspects.*

The basis of large scale economies in general has been clearly analysed elsewhere,[2] and crystallized in three principles—of *Bulk transactions*, of *Massed Reserves*, and of *Multiples*. We first outline briefly the relative importance of these in the retail field.

Bulk transactions have already been discussed; it was not found possible to impute separately to external economies and to monopolistic advantage the reduction in buying prices enjoyed by large enterprises.

"The 'principle of massed reserves' implies that if reserves are kept against certain contingencies, their effectiveness will increase (or their cost decrease) with the size of operations."[3] In retail trade this principle works mainly through the size of stocks. If, for example, the ratio of stocks to sales is one third,[4] and the rate of interest on borrowed funds 5 per cent, then the cost of holding stocks amounts to about 1.7 per cent of the Retail Price, or $6\frac{2}{3}$ per cent of total operating expenses (where these represent 25 per cent of total sales). If the ratio of stocks to sales can be lowered, *e.g.* to one-sixth, then the cost of holding stocks will fall by half—an important saving.

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is accompanied by a rise in the ratio of Sales to Total Capital from 3 to 4. This would give a value $E_U = +0.4$. In some kinds of merchandise the value is about $+0.2$. We have therefore taken our approximate value as lying between these two.

[1] If x (size of enterprise measured in sales) and N (Net Margin) are both plotted logarithmically, the slope of the line of best fit will give the elasticity of Net Margin as sales increase, for $E_N = \frac{d \log N}{d \log x}$

[2] v. J. Steindl: Small and Big Business, and P. Sargent Florence: The Logic of Industrial Organization.

[3] Steindl: op. cit. page 14.

[4] The Rate of Stockturn (R.S.T.) is the reciprocal of this, *i.e.* 3.

"The 'principle of multiples' implies that if various specialists and specialized machines are used in one and the same process, and have different optimum capacities' of production, the full employment of them all will be secured only at a level of output which is the lowest common multiple of the optimum capacities of them all."[1]

It is in the use of specialists rather than specialized machines that this principle is operative in retail trade. The higher sales per employee, which we shall show to be achieved by the larger enterprises, are not accompanied, as in manufacturing, by a large increase in capital intensity,[2] precisely because the distributive function does not readily lend itself to mechanization. But the opportunity to split up the distributive function into a number of specialized tasks (*e.g.* buying, book-keeping, publicity, delivery)[3] does not exist at all for the smallest stores. Such sub-division is carried to its furthest lengths in the chain stores, where the selling function and the buying and administrative tasks are completely divorced.

The next step is to study these economies in the quantitative variations of Operating Expenses as size of enterprise increases.

2. *Combined Operating Expenses and Size of Enterprise.*

Comparative data for Operating Expenses of Department Stores in the United Kingdom and the United States are presented in Table 8.

TABLE VIII

Combined operating expenses, as a percentage of Net Sales, according to size of store in U.S. and U.K. Department Stores in 1935, 1936, 1937.*

Size of store (Annual Net Sales in £†)	*1935*		*1936*		*1937*	
	U.S.	U.K.	U.S.	U.K.	U.S.	U.K.
less than 100,000	30.0	27.2	29.4	28.8	30.3	27.6
100,000—250,000	31.6	24.9	30.4	25.3	31.5	25.2
250,000—500,000	32.4	25.6	31.6	25.1	32.5	24.7
500,000—1,000,000	33.4	24.4	32.6	25.4	33.2	26.0
More than 1,000,000	34.6	23.7	33.3	23.7	34.5	24.2

Source: Retail Distributors Association: Annual Operating Expenses Enquiry, year ending Jan. 31st. 1938.

*For the U.S. stores, net of interest.

†£1 (U.K.) = $5 (U.S.).

In the U.K. sample there is a downward movement in Expenses as size increases. The U.S. sample, however, behaves in exactly the opposite way, and one might be persuaded that the appearance of scale economies among U.K. stores was not significant. But a closer examination shows that the large Department Stores in the U.S.A. were predominantly located in big cities, where wages and rental expenses would naturally be higher.[4] Support for this view can be found in the behaviour of Hardware Stores in the U.S.A., whose operating Expenses, like those of the U.K. sample, are negatively correlated with size of store. Unlike U.S. Department Stores, the larger Hardware stores are not located predominantly in big cities[1] and there is, therefore, no tendency for internal economies of scale to be offset by the abnormally high expenses prevailing in such localities.

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[1] Steindl: loc. cit.

[2] Steindl: op. cit. Ch. III.

[3] It is noticeable that the first specialization of labour following the expansion of a one-man store is in respect of delivery—he acquires an errand boy!

[4] This explanation is suggested by the 20th Century Fund study: Does Distribution cost too much? Census data (1929) show that the average sizes of Department Stores in the five Urbanized and the five Non-Urbanized (v. BULLETIN, Vol 8, No. 8) states are respectively $1,480,000 and $286,000.

Combined Operating Expenses for chain stores[2] (all kinds of merchandise together) appear likewise to decline as size of chain increases.

TABLE IX

Combined Operating Expenses, as a percentage of sales, by size of chain, all kinds of chain combined (average of years 1913–30).

Size of chain (No. of stores)	2–5	6–10	11–25	26–50	51–100	101–500	501–1000	Over 1000	All sizes
Combined Operating Expenses ...	24.47	23.63	24.37	23.88	23.07	19.44	19.03	14.24	18.59
Individual items :									
Salaries, wages and bonuses ...	16.07	15.36	14.69	15.18	13.58	12.34	12.51	9.97	12.22
Rent	3.44	3.10	4.96	4.91	6.67	4.41	3.94	2.87	3.66
Publicity ...	3.80	4.05	3.41	2.34	1.36	1.22	0.92	0.68	1.61
Repairs and Depreciation ...	1.16	1.12	1.31	1.45	1.46	1.47	1.66	0.72	1.10

Source : F.T.C. op. cit. Document 99.

These results are in themselves deceptive, for the kinds of merchandise chiefly represented in the larger chains, and especially in the group of chain with over 1,000 stores, are precisely those in which Operating Expenses are low. Taking the merchandise groups separately, the results become more doubtful ; in each of the three kinds of merchandise which account collectively for more than half the sales in the sample the behaviour of Operating Expenses shows no decided trend, and the two next in importance show opposite trends. It has not been possible, however, to eliminate either the effects of locality or of Publicity expense upon these figures. One possible factor offsetting the presumed overall economies of horizontal integration should be noticed : in three of the first four merchandise groups mentioned above, and indeed for chains as a whole (v. Table 10), the average size of *store* decreases as the size of chain increases.

TABLE X

Average sales per store by size of chain, all kinds of chain combined (average of years 1913–30).

Size of chain (No. of stores)	2–5	6–10	11–25	26–50	51–100	101–500	501–1000	Over 1000	All sizes
Average sales per store ($'000) ...	293	310	123	94	70	96	75	64	87

Source : F.T.C. op. cit. Document 40.

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[1] The average sizes of Hardware Stores in the two above types of locality—viz. $31,700 and $35,400 respectively, are not significantly different.

[2] F.T.C. op. cit. Document 40.

3. *Rent Expenses and size of enterprise.*

It has already been suggested that the real economies of scale are disguised by the inclusion in Operating Expenses of those expenditures on Publicity and Delivery which are more properly regarded as 'selling costs'. It is now suggested that Rent Expense also should be so designated. For while it is true that retailers do not constitute the entire demand for sites, yet the special advantages to the retailer (in terms of increased sales and hence reduced per unit Operating Expenses[1]) of sites in busy central areas, make him the most likely buyer. If a given site could be used indifferently either for a large)[2] or a small store, then, if our conclusions about economies of scale are correct, the larger store would be able to afford, not merely a higher total rent, but a higher ratio of Rent Expense to volume of sales. In fact, given competitive prices, and the elimination of all other forms of product differentiation *except* store-location, rent would be the exact measure of large scale economies.

Rent Expenses form a higher proportion of sales[3] in the large chains than the small, despite the fact that the large chains (*e.g.* grocery) are composed of smaller stores, and penetrate into the smaller towns where average rentals are less high.

This same trend is shown by U.S. Department Stores (Table II) but not in the U.K. sample. In the latter case, further analysis reveals that while the large stores pay 20 per cent higher rent per square foot of floor space, nevertheless their sales per square foot are more than double, so that Rent Expense actually decreases with size.

The subtraction of Rent Expense from Combined Operating Expenses would in many cases in the U.S. chain store data change a positive or zero correlation of Expense and size into a negative one.

4. *Size and the Productivity of Labour.*

The varying contributions of individual Expense items to combined operating Expense is shown in Table 12.

Publicity and Despatch have already been considered; the share of Administration does not vary appreciably with size, but that of Merchandising (Buying and Selling) which is the largest individual item, falls with size. This is simply the obverse of rising Sales per Employee (v. Table 11). This trend, though less pronounced in the U.S. data of Table 11, is amply confirmed in the comprehensive material of the Censuses of Canada and Eire.

The sharp fall in the largest size of store is explained by the peculiar composition of the group; 72 per cent of its sales are accounted for by one kind of merchandise, namely Department Stores, whereas no other size group is similarly overweighted. But even this aberration does not confuse the general picture of rising productivity.[4] This enables the larger stores,

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[1] Net of Rent.

[2] Size, of course, measured in volume of sales.

[3] F.T.C. op. cit. Document 99 shows an upward trend in Rent Expense as size of chain increases in 14 kinds of merchandise, a downward trend in 6, and an indeterminate trend in 6 more.

[4] A linear relation exists between sales per person actively engaged and the logarithm of size of store.

TABLE XI

Operating results of U.S. and U.K. Department stores, by size of store, in 1937.

Size of Store (Annual Net Sales) £*	Rent and Rates† U.S.	Rent and Rates† U.K.	Sales per Employee U.S.	Sales per Employee U.K.	Rate of stockturn‡ U.S.	Rate of stockturn‡ U.K.
	Per cent of sales		$	£		
less than 100,000 ...	3.6	4.6	6,300	818	2.6	3.4
100,000—250,000 ...	3.45	4.1	5,850	886	3.3	4.3
250,000—500,000 ...	3.8	3.2	5,750	909	3.5	4.8
500,000—1,000,000 ...	4.4	3.9	6,350	1,026	3.8	6.1
more than 1,000,000	4.7	3.2	6,700	1,108	4.3	5.5

Source : Retail Distributors' Association loc. cit.

*£1 (U.K.)=$5 (U.S.)

†U.S. figures include insurance.

‡U.S.A. : Sales divided by stocks, both measured at Selling Price.
U.K. : Median figures, calculated on the basis of stocks at cost. To make them comparable with U.S. figures, they have been multiplied by 70/100, assuming a Gross Margin for U.K. of 30 per cent.

TABLE XII

Contribution of individuals operating Expense item, to Combined Operating Expense, by size of store, in U.K. Department Stores, 1931.

Percentage Share of Total Expenses.

Size of Store (Annual Net Sales £)	Administration	Occupancy	Publicity	Merchandising	Despatch	Total
Less than 100,000	20.8	26.5	8.5	37.0	7.2	100.0
100,000—250,000	20.1	25.9	10.0	36.5	7.5	100.0
250,000—500,000	19.5	24.8	10.9	36.8	7.9	100.0
500,000—1,000,000 ...	19.2	22.8	15.1	34.6	8.3	100.0
More than 1,000,000 ...	20.4	21.9	12.8	33.4	10.6	100.0
All sizes	20.0	23.2	12.5	34.7	9.7	100.0

Source : Retail Distributor's Association Op. Cit. 1931.

TABLE XIII

Sales per Employee and per Person Actively Engaged, by size of store, in all Canadian stores, 1930.

Size of Store (Annual Net Sales) $	Sales per Employee* $	Sales per Person Actively Engaged† $
2,000	11,750‡	1,712
7,200	10,780‡	4,269
14,000	11,080	6,186
24,100	11,860	7,945
37,900	12,150	9,205
68,200	12,250	10,418
134,700	12,400	11,368
239,300	13,140	12,475
372,300	14,000	13,507
667,500	14,200	13,981
4,449,000	8,700	8,806

Source : Seventh Census of Canada 1930.

*Full-time paid employees, including managers, but excluding proprietors.

†Full-time paid employees (as defined above) *plus* proprietors.

‡These two figures arise from dividing Total Sales by Total Employees for stores which on the average have only, about 1-6th of an employee each.

while paying higher average wages per employee[1] to maintain the lower per unit Wages Expense evidenced above.

Chains here have an advantage over independents. The respective annual sales per employee in chain and independent grocery stores in the United States in 1935[2] were $11,563 and $5,358 while the chains paid average annual wages of $995 against the independents $672.

In the chain sector alone (v. Table 14) Salaries, Wages and Bonus decline markedly in the larger chains.

There thus appears to be ample evidence of productivity increasing with size.

TABLE XIV

Salaries, Wages and Bonuses as a percentage of sales, by size of chain, all chains combined, 1913–30.

Size of chains ...	2–5	6–10	11–25	26–50	51–100	101–500	501–1000	Over 1000
Wages, salaries and bonuses as percentage of sales	16.07	15.36	14.69	15.18	13.58	12.34	12.51	9.97

Source : F.T.C. op. cit. Document 99.

5. ' *The Principle of Massed Reserves*'—*Size and the Rate of Stockturn.*

The importance of the share of stocks in total capital invested has already been emphasised. It merely remains to show that the need to increase stocks is not proportionate to the increase in sales. The evidence for this is plentiful and unambiguous. Two examples are given in Table 15, one for Retail Drapery Stores in Eire and the other for U.S. Chain Stores.

TABLE XVA.

Rate of Stockturn, by size of store, of Retail Drapery Stores in Eire (1933).

Size of Store (*Annual Net Sales*) £	*Rate of Stockturn.*
100 – 499	1.55
500— 999	1.72
1,000— 2,499	1.79
2,500— 4,999	2.12
5,000— 9,999	2.71
10,000—49,999	3.44
50,000 and over	4.70

Source : Eire Census of Distribution 1943.

XVB

Rate of Stockturn, and Number of Days' Supply held, by size of chain, all kinds of chains combined, average of years 1913–30.

Size of chain ... ... (No. of Stores)	2–5	6–10	11–25	26–50	51–100	101–500	501–1000	over 1000	all sizes
Rate of Stockturn ...	4.03	4.27	4.60	4.72	5.20	5.47	5.60	8.64	5.97
No. of Days' Supply held	91	85	79	77	70	67	65	42	61

Source : F.T.C. op. cit., Document 40.

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[1] *E.g.* in the Eire Census data the annual wages per Employee, by size of store, are respectively as size increases—£44, £71, £93, £117.

[2] 1935 Census of Business, quoted in T.N.E.C., op. cit. Monograph 35. The chain wage figures include the salaries of store managers.

The extent of the rise in R.S.T. in the chain store Table is slightly exaggerated[1] but the rise itself is confirmed by the similar behaviour of R.S.T. by size of chain, in the majority of kinds of merchandise.

Thus the small store (and chain) can offer the same variety of goods only by increasing its stocks to prohibitive levels; and in those fields where physical deterioration or obsolescence are important, the large stores and organizations are able to keep a fresher supply of goods, and to change the nature of those goods more frequently.

SUMMARY.

1. *The Measurement of Success.*

The problem of measuring success by direct and indirect evidence is discussed. It is proposed to examine the advantages of the large stores and organizations under two broad heads—those which arise from a monopolistic or monopsonistic position, and those which arise from economies of scale.

2. *Monopolistic and Monopsonistic advantages.*

Evidence is produced to show that no advantage in respect either of higher prices or higher Percentage Gross Margins is enjoyed by large enterprises. They are, however, undoubtedly able to buy more cheaply.

They are also able to afford higher per unit ' selling costs ' (Publicity, Delivery and other services) which should enable them to attract and maintain a greater volume of sales.

3. *Economies of sale.*

These higher unit selling costs are possible because the other Operating Expenses of large enterprises are lower. They are lower firstiy because of the rising productivity of labour with size, and secondly because the cost of holding stocks does not increase proportionately with sales.

4. *Conclusion.*

Thus the trends towards greater concentration portrayed in our first article are given a basis in the greater profitability of large enterprises. It remains to discuss whether that profitability is achieved at the expense of the consumer.

R. BELLAMY.

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[1] Especially the figure of 8.64 for the largest chains; this group is overweighted by grocery chains whose average R.S.T. for all sizes of chain is abnormally high.

TABULAR APPENDIX

EDITORIAL NOTE

The following set of tables presents figures illustrating the economic development in U.S.A. and some European countries. As far as possible 1938 was taken as the base year, but it should be remembered that 1938 was in some countries a year of severe recession. The figures are given as far as possible as monthly or quarterly averages.

When statistical data of foreign countries become more easily available, we hope to add other countries and to include new series in this survey.

Explanation of Symbols

( ) — figure is provisional or approximate.

N.A. — figure is not available — — figure is negligible.

B. ECONOMIC DEVELOPMENTS ABROAD.

TABLE I. U.S.A.

Index Numbers 1938=100[1]	Monthly Average 1939	1943	1944	1945	1945 June	1946 April	May	June[2]	July[2]
Income Paymts. (Mthly.) :									
Total, $1,000 Mill. ...	5.9	11.9	13.0	13.4	14.4	13.0	12.8	14.4	N.A.
Index, adjusted	107	216	237	242	249	240	244	243	254
Consumer Expenditures :									
Mthly. aver. $1,000 Mill.	5.1	7.6	8.2	8.7	8.5[3]	N.A.	N.A.	10[3]	N.A.
Index, adjusted	105	156	168	179	173	N.A.	N.A.	203	N.A.
Dept. Store Sales, Value Index	107	170	188	209	204	252	259	278	277
Vol Index of Farm Mktgs.[4]	109	133	140	137	148	131	159	130	N.A.
Vol. Index of Ind. Prodn.[5]	122	268	264	228	247	185	179	191	194
Durable Manuf.	140	461	452	351	395	245	224	246	259
Non-durable Manuf. ...	115	185	180	175	182	172	168	169	166
Constrctn. Contr. Awarded									
Value Index	113	106	64	106	78	266	264	275	258
Vol. Index[6]	113	86	50	81	60	185	180	N.A.	N.A.
Index of Non-Agr. Empl.[7]	106	139	135	129	131	130	131	131	137
Index of Factory Emplyt.[8]	111	197	191	166	175	152	153	154	156
Index of Wholesale Prices	98	131	132	134	135	140	142	144	158
Do. Farm Products ...	94	179	180	186	189	196	199	203	228
Cost of Living Index ...	98	123	124	127	128	130	131	132	140
Facty. Av. Hrly. Earngs. cts.	63.3	96.1	101.9	102.3	103.8	105.8	107.1	108.0	N.A.
Do. 1938=100	101	153	162	163	165	168	170	172	N.A.
Mthly. Com. Expts.[9] Mill. $	260.3	206.9	238.0	336.6	339	393	389	371	420
Mthly. Ret. Impts. Mill .$...	189.7	281.7	322.4	339.5	316	673	750	801	807

Sources : Department of Commerce for Income Payments, Consumer Expenditures and Farm Marketings : *Board of Governors of the Fed. Res. System* for Industrial Production and Department Store Sales ; *U.S. Dept. of Labor* for Wholesale Prices, Cost of Living, Employment and Hourly Wage Earnings ; *F. W. Dodge Corp.* for Value of Construction Contracts awarded.

[1] All index numbers, except those of wholesale prices, cost of living (and wages) are adjusted for seasonal variations.

[2] Partly provisional.

[3] Monthly average, 2nd quarter.

[4] 1935—1939=100.

[5] Mining and Manufacturing.

[6] Value Index deflated with (Engineering News Record) Index of Construction Costs.

[7] All non-agricultural wage—and salary earners except those in Domestic Service and in the Armed Forces.

[8] Revised series.

[9] Excluding Lend Lease and Re-exports but including U.N.R.R.A. supplies.

TABLE II FRANCE

	Monthly Average				1946				
Index Nos. 1938=100	1939	1943[1]	1944[1]	1945	Mar.	April	May	June[2]	July[2]
Production of Coal[3]									
1,000 metr. tons	4,185	3,538	2,217	2,922	4,207	4,043	4,133	3,838	4,115
Index	106	89	56	74	106	102	104	97	104
Production of Steel									
1,000 metric tons	617	194	106	134	297	319	342	343	377
Index	128	38	21	26	57	62	66	66	73
Index of Production of :									
Cement	N.A.	74	36	44	244	256	317	327	N.A.
Commercial Vehicles	N.A.	48	26	83	145	170	174	191	195
Passenger Cars	N.A.	—	—	0.85	10.5	12.5	15.5	15.0	18
Cotton Fabrics	N.A.	17	N.A.	22	63	68	73	73	71
Approved Building Plans[4]									
1,000 cbm.	706	79	55	151	392	357	417	N.A.	N.A.
Daily Wagon loadings									
('000)	41.1	21.9	8.9	16.7	27.9	29.8	30.5	30.6	31.4
Index of Wholesale Prices[5]	N.A.	218	262	366	521	526	620	582	531
Imports Mill. frs.	3,649	1,162	645	4,569	12,006	20,886	19,769	28,528	23,349
Exports Mill. frs.	2,633	2,945	1,997	949	4,195	7,568	7,258	8,504	7,956
Imports '000 tons	3,262[6]	388	186	859	2,044	2,916	2,647	3,181	2,690
Exports '000 tons	2,083[7]	1,067	588	220	664	809	926	892	859

Sources : Statistique Générale de la France ; La Vie Francaise, Hebdomadaire Economique et Financier ; League of Nations, Monthly BULLETIN of Statistics.

[1] The Production figures and the statistics of wagon loadings for 1943 and 1944 exclude Alsace-Lorraine.
[2] Partly provisional.
[3] Including lignite.
[4] Covering Greater Paris and 41 provincial towns.
[5] 1941 weights.
[6] 3,929,000 tons in 1938.
[7] 2,249,000 tons in 1938.

TABLE III BELGIUM

Index Nos. 1936–38=100				1945		1946			
Monthly figures or averages	1939	1943	1945	May	June	Mar.	April	May	June
Industrial Prod. : Index									
General	N.A.	N.A.	35	23	32	73	74	75	78
Coal	N.A.	N.A.	53	40	52	75	77	76	79
Iron	N.A.	N.A.	28	18	27	70	69	69	75
Textiles	N.A.	N.A.	35	16	26	92	90	90	95
Food Ind.	N.A.	N.A.	36	31	34	56	64	58	59
Coal Prod. 1,000 m. tons	2,487	1,979	1,310	920	1,291	1,929	1,885	1,893	1,797
Steel Prod. 1,000 m. tons	259	139	61	39	54	171	172	179	182
Imports[1] Mill. frs.	2,018[2]	535	1,144	511	972	2,963	3,143	3,780	4,187
Exports[1] Mill. frs.	1,850[2]	743	331	126	187	1,869	1,666	2,286	2,269
Imports[1] '000 tons	2,868[2]	659	632	1,137[3]	N.A.	1,590	1,394	N.A.	N.A.
Exports[1] '000 tons	1,912[2]	537	121	199.6[3]	N.A.	510	483	N.A.	N.A.

Sources : BULLETIN DE STATISTIQUE (Office, Central de Statistique) : Monthly BULLETIN OF STATISTICS, League of Nations.

[1] Figures for 1936–38 and after April 1945 refer to Belgium-Luxemburg.
[2] Monthly average 1936–1938.
[3] Monthly average, 2nd quarter.

TABLE IV SWITZERLAND

Index Nos. 1938=100	1939	1943	1944	1945	1945	1946			
					Aug.	May	June	July	Aug.
Index of :									
Industrial Employment[1]	99	105	100	110	112[2]	121[2]	N.A.	N.A.	N.A.
Wholesale Prices ...	104	204	208	206	208	198	198	199	200
Cost of Living	101	148	151	152	153	150	150	150	150
Tourism (monthly)[3] ...	77	24	26	42	28[4]	68	69	100	N.A.
Monthly Impts. Mill. frs. ...	157	144	99	102	107	279	273	268	284
Monthly Expts. Mill. frs.	108	136	94	123	129	225	199	259	217
Index of Imports at 1938 prices	117	47	32	31	28	101	104	106	N.A.
Index of Exports at 1938 prices	96	63	40	57	64	105	91	121	N.A.

Sources : Schweizerische Nationalbank, Monatsbericht.

[1] Number of wage-earners employed in a representative sample of establishments, including building. Quarterly figures or averages.

[2] 3rd quarter.

[3] Based on the statistics of nights spent by foreign tourists in Swiss hotels.

[4] July.

TABLE V DENMARK.

Index Numbers 1938=100	1939	1943	1944	1945	1945		1946			
					June	July	Apr.	May	June	July
Index of :										
Industrial Production[1] ...	105	87	87	79	71	70	96	77[2]	96	97
Prodctn. of Animal Prodts.[3]	103	58	68	68	74	74	69	91	99	82
Prodctn. of butter[3]	96	66	67	69	93	85	68	90	99	95
Prodctn. of bacon[3]	99	51	65	59	50	56	42[2]	83[2]	105	67
Wholesale Prices	105	191	194	190	190	189	205	206	206	206
Cost of Living	101	155	157	159	N.A.	159	N.A.	N.A.	N.A.	157
Monthly Imports Mill. Kr. ...	145	102	97	59	31.6	53.6	174	195	194	248
Monthly Exports Mill. Kr. ...	131	103	112	75	91.0	70.2	107	93	126	135
Index of Imports at 1938 prices	98	34	32	21	11	19	66	74	73	93
Index of Exports at 1938 prices	101	44	46	32	38	29	51	47	64	62

Source : Statistike Departement, Statistike Eftnerretninger.

[1] Adjusted for seasonal variations.

[2] Affected by strikes. [3] Revised series.

TABLE VI SWEDEN

Index Numbers 1938=100	1939	1943	1944	1945	1945		1946		
					June	Dec.	May	June	July
Index of :									
Industrial Production[1] ...	106	93	93	91	72	107	110	109	107
Industrial Employment[2]	103	102	103	99	86	105	110	111	110
Wholesale Prices ...	103	175	175	173	175	169	164	165	165
Cost of Living	102	144	145	146	145	145	N.A.	146	N.A.
Monthly Imports Mill. Kr.	208	151	139	91	50	157	299	283	300
Monthly Exports Mill. Kr.	157	98	69	146	124	234	237	222	238
Index of Impts. 1938 prices	109	33	35	21	11	37	78	(75)	(79)
Index of Expts. 1938 prices	106	37	26	56	48	91	87	(81)	(86)

Source : Skandinaviska Banken, Quarterly Review ; *League of Nations*, Monthly Bulletin of Statistics.

[1] Mining and manufacturing. [2] Number of wage-earners in mining and manufacturing.
[3] April.

Table VII NORWAY

Index Nos. 1938=100	1939	1943	1944	1945	July	Dec.	1946 May	 June	 July
Index of :									
Industr. Production	107	81	76	69	60[1]	79	105	106	N.A.
Wholesale Prices ...	102	175	177	177	178	166	170	169	171
Cost of Living	101	150	152	155	155	156	155	158	159
Monthly Impts. Mill. Kr. ...	114	84	60	101	43[1]	113	142	166	N.A.
Monthly Expts. Mill. Kr. ...	67	45	43	27	12[1]	43	108	123	N.A.
Vol. of Imports Index ...	111	29	19	46	N.A.	55	N.A.	N.A.	N.A.
Vol. of Exports Index ...	108	33	29	19	N.A.	32	N.A.	N.A.	N.A.

Source : Bulletin Mensuel du Bureau Central de Statistique du Royaume de Norvège. League of Nations, Monthly Bulletin of Statistics.

[1] May.

Table VIII

COAL MINING IN PARTS OF EUROPE

Output and Supplies of Coal in Western Europe June–August, 1946[1].

	Employment[2] ('000) June	 July	 Aug.	Production[3] ('000 m. tons) June	 July	 Aug.	Imports[4] ('000 m. tons) June	 July	 Aug.
Germany[5]	234	236	235	5,407[6]	4,871[7]	6,116[6]	—	—	—
France[8]	319	320	320	3,835	4,121	4,152	572	1,085	1,182
Belgium	154	154	155	1,822	1,828	1,830	182	255	267
Holland[8]	34	35	33	687	809	656	165	442	377
Luxemburg...	—	—	—	—	—	—	116	184	202
Norway	—	—	—	—	—	—	156	278	221
Denmark	—	—	—	—	—	—	270	346	408

	July 1946 Employment.	 Production.	 Domestic Supplies[9]	August 1946 Employment.	 Production.	 Domestic Supplies[9]
	In % of mthly. av. 1935–8			In % of mthly. av. 1935–8		
Germany[5]	74[10]	43	46	74[10]	54	N.A.
France[8]	142	106	90	142	107	N.A.
Belgium	112	77	87	112	77	N.A.
Holland[8]	116	74	94	109	59	N.A.
Luxemburg	—	—	73	—	—	80
Norway	—	—	109	—	—	87
Denmark	—	—	74	—	—	86

Source : European Coal Organisation.

[1] Figures to nearest '000 workers and metric tons. August figures provisional.
[2] Underground and Surface Workers excluding Office Staff.
[3] Hard coal (clean coal raised to the surface).
[4] All solid fuel.
[5] Western Germany only (British and French zones).
[6] Five weeks' period.
[7] Four weeks period.
[8] Including brown coal.
[9] Production *minus* exports *plus* imports.
[10] Against average 1935–37.

Erratum.

Bulletin, Vol. 8, No. 7, p. 213, Table II, at the head of column 4—Output per head in U.S. 1939, the symbol should be $ and not £.